Possible Performance Measures for Transportation/Land Use Coordination

A survey of states: May 16, 2007

This is the summary version.

Detailed version available.

How We Identified PMs

- Contacted 11 states and 3 MPOs

- Reviewed agency literature

- Asked in person: "What performance measures do you use to assess land use and transportation coordination?"

Quick Summary

- **Typical response**: We don't measure transport/land use coordination

- **Typical interpretation**: We may collect related PMs depending on the goal of such coordination

- **My concern**: Is the PM current?

Diverse Goals

☐ Improve transportation options

☐ Protect or manage corridors
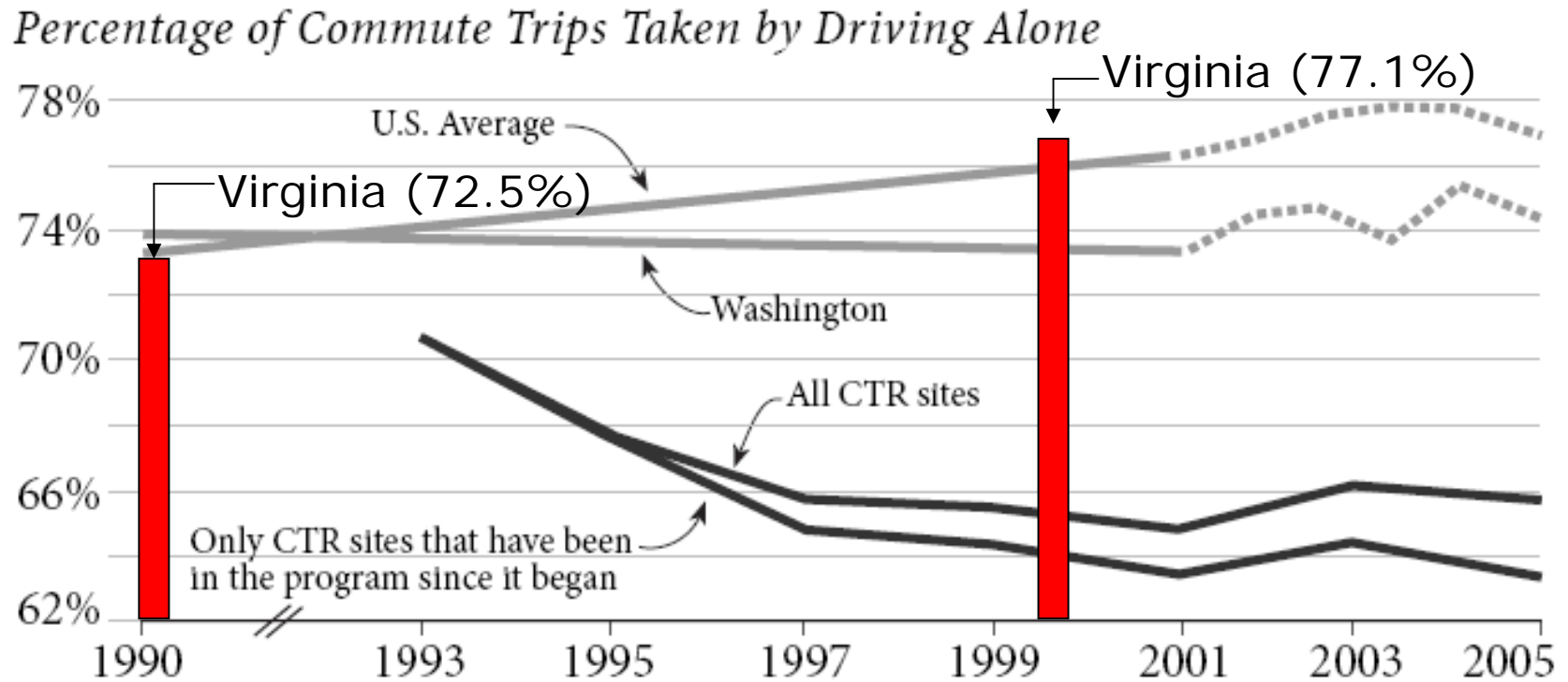
☐ Align state and local efforts

☐ Reduce land consumption

Measure modes

Don't measure modes
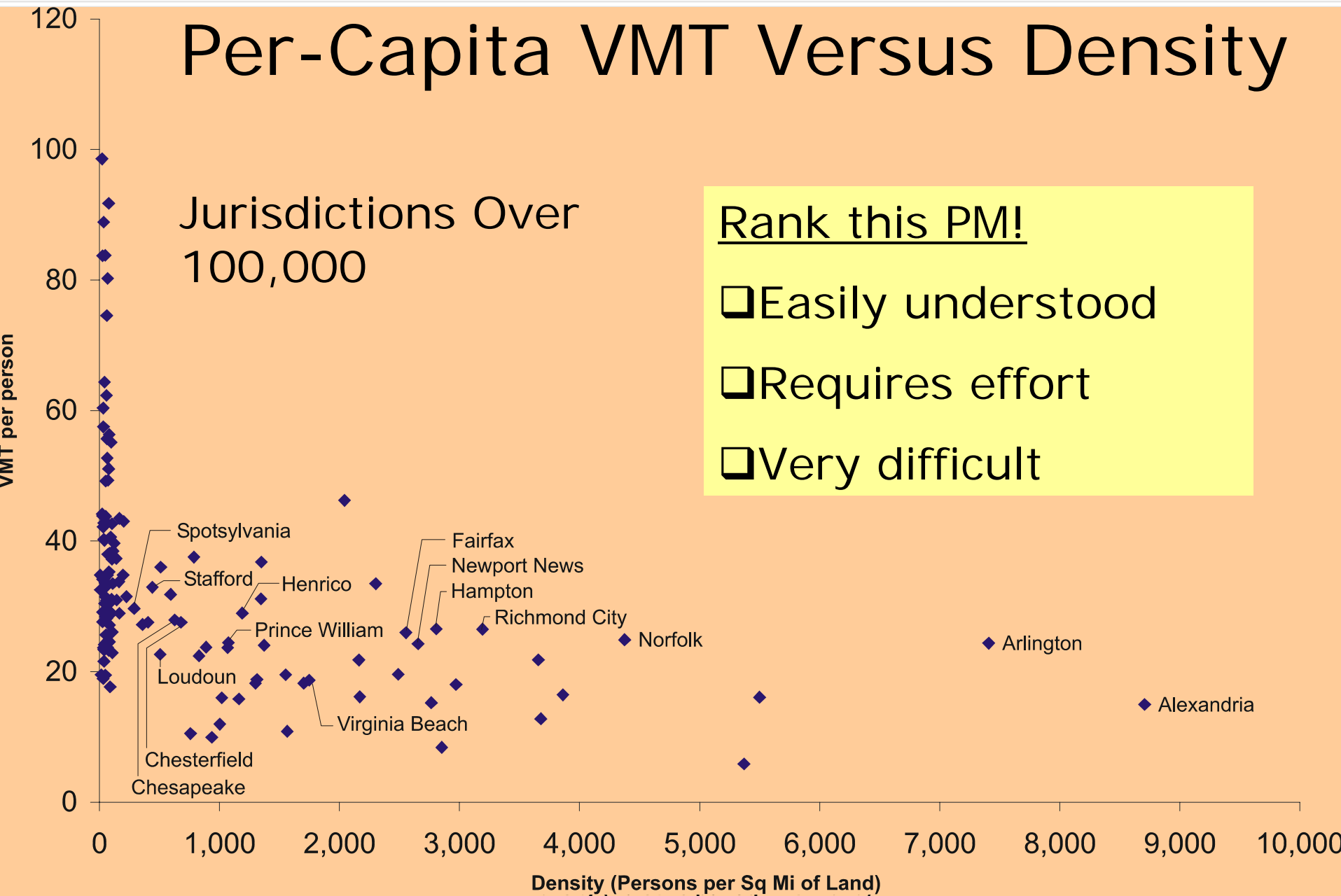
Goal: Improve Transportation Options (*measure mode use*)

- ☐ Found 6 PMs, 2 of which are

- ☐ Commuter trips by auto

- ☐ Vehicle Miles Traveled (VMT)

Commute Trips by Auto (WA)

Percentage of Commute Trips Taken by Driving Alone

Source: *Measures, Markers and Mileposts,* The Gray Notebook, Washington State Department of Transportation, Number 23, page 78, http://www.wsdot.wa.gov/accountability/Archives/GrayNotebookSep-06.pdf#page=69

Per-Capita VMT Versus Density

Jurisdictions Over 100,000

Rank this PM!

☐ Easily understood

☐ Requires effort

☐ Very difficult

Scatter plot of VMT per person versus Density (Persons per Sq Mi of Land). Labeled points: Spotsylvania, Stafford, Henrico, Fairfax, Newport News, Hampton, Prince William, Richmond City, Norfolk, Arlington, Loudoun, Virginia Beach, Chesterfield, Chesapeake, Alexandria.

Goal: Improve Transportation Options (*don't measure mode use*

- ☐ Found 7 PMs, 4 of which are

- ☐ Auto Dependence Index

- ☐ Quality of travel choices

- ☐ Growth where transport options exist

- ☐ Jobs/Housing Balance

Auto Dependence Index (OR) (Proposed)

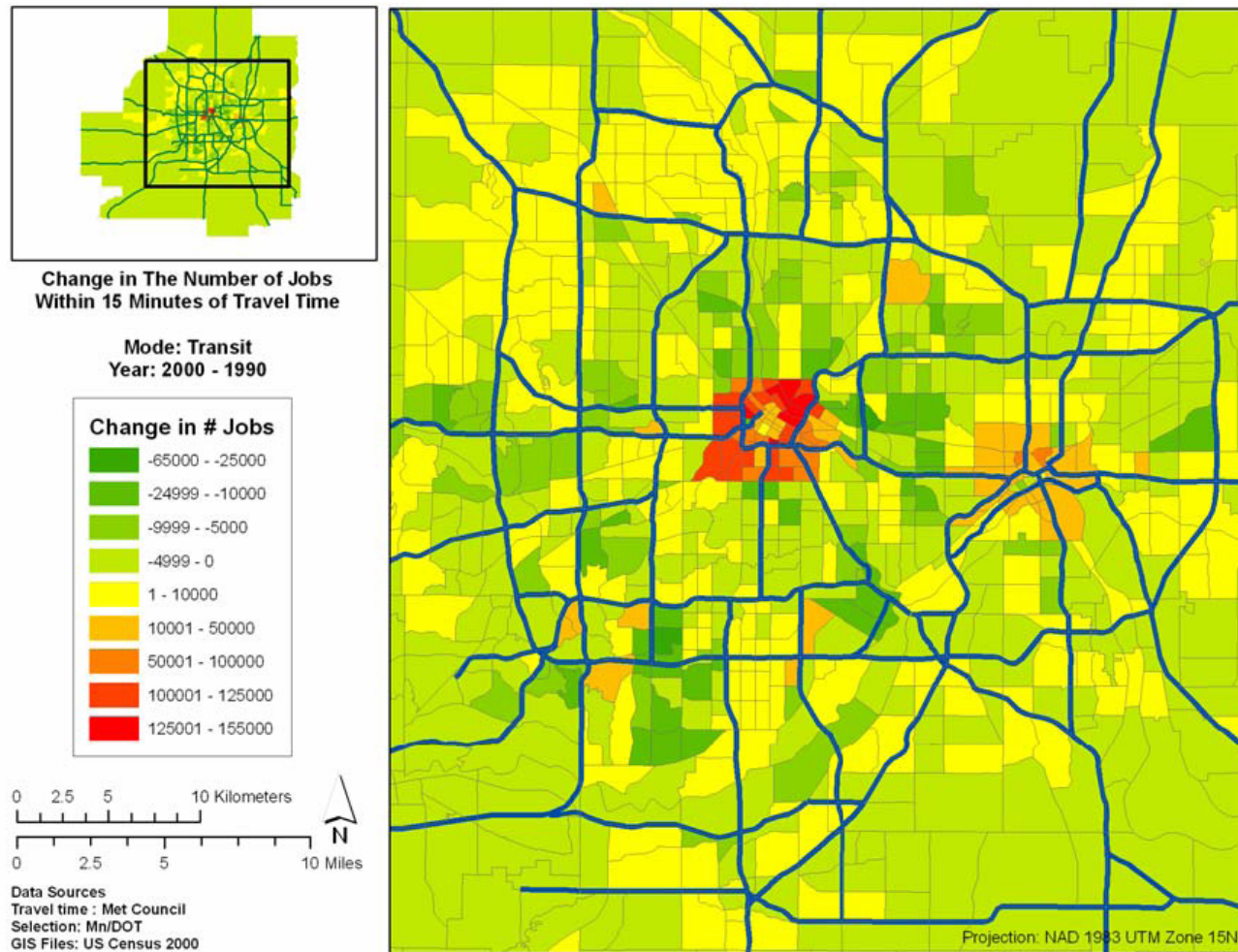$$\frac{\text{Average Cost of Non-Auto Travel}}{\text{Average Cost of Auto Travel}}$$

"Cost" includes waiting time, out of pocket costs, and any other "costs" to the operator.

Rank this PM!

☐ Easily understood

☐ Requires effort

☐ Very difficult

Quality of Travel Choices (UMinn/TCMC)

Change in The Number of Jobs
Within 15 Minutes of Travel Time

Mode: Transit
Year: 2000 - 1990

Change in # Jobs

■	-65000 - -25000
■	-24999 - -10000
■	-9999 - -5000
■	-4999 - 0
■	1 - 10000
■	10001 - 50000
■	50001 - 100000
■	100001 - 125000
■	125001 - 155000

0   2.5   5   10 Kilometers

0   2.5   5   10 Miles

N

Data Sources
Travel time : Met Council
Selection: Mn/DOT
GIS Files: US Census 2000

Projection: NAD 1983 UTM Zone 15N

Source: El-Geneidy, A.M. and Levinson, D.M. Access to Destinations: Development of Accessibility Measures, Center for Transportation Studies, University of Minnesota, Mn/DOT 2006-16, http://www.lrrb.org/PDF/200616.pdf, pp. 44,45.

# Growth Where Transport Options Exist (Twin Cities Metropolitan Council)

Percentage of housing units built by location
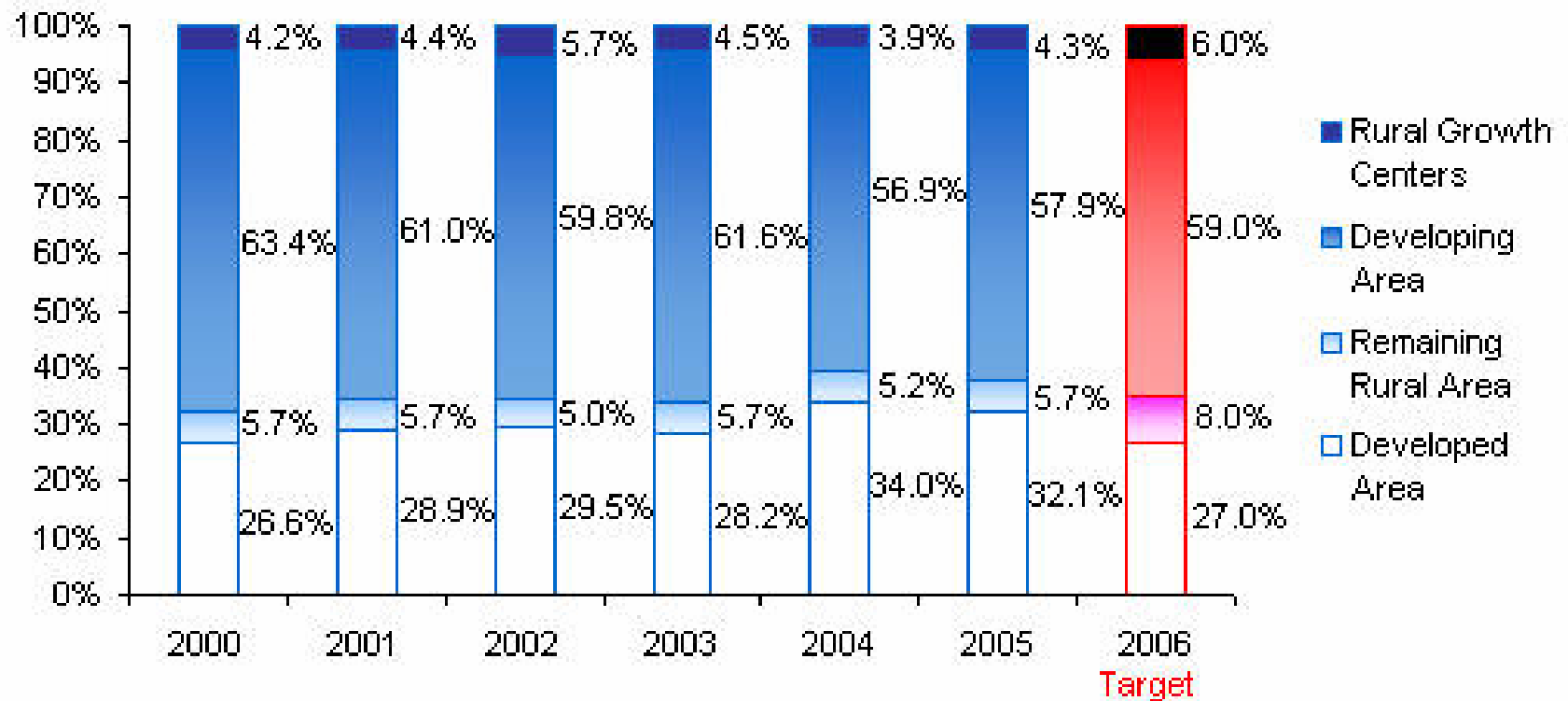
Source: Twin Cities Metropolitan Council. Department Results (Metropolitan Council), Minnesota Office of the Governor, 2006, http://departmentresults.state.mn.us/met/index.html.

Jobs/Housing Balance (VA)

$$\frac{1{,}183 \text{ work in Powhatan}}{8{,}183 \text{ work somewhere}} = 14\%$$
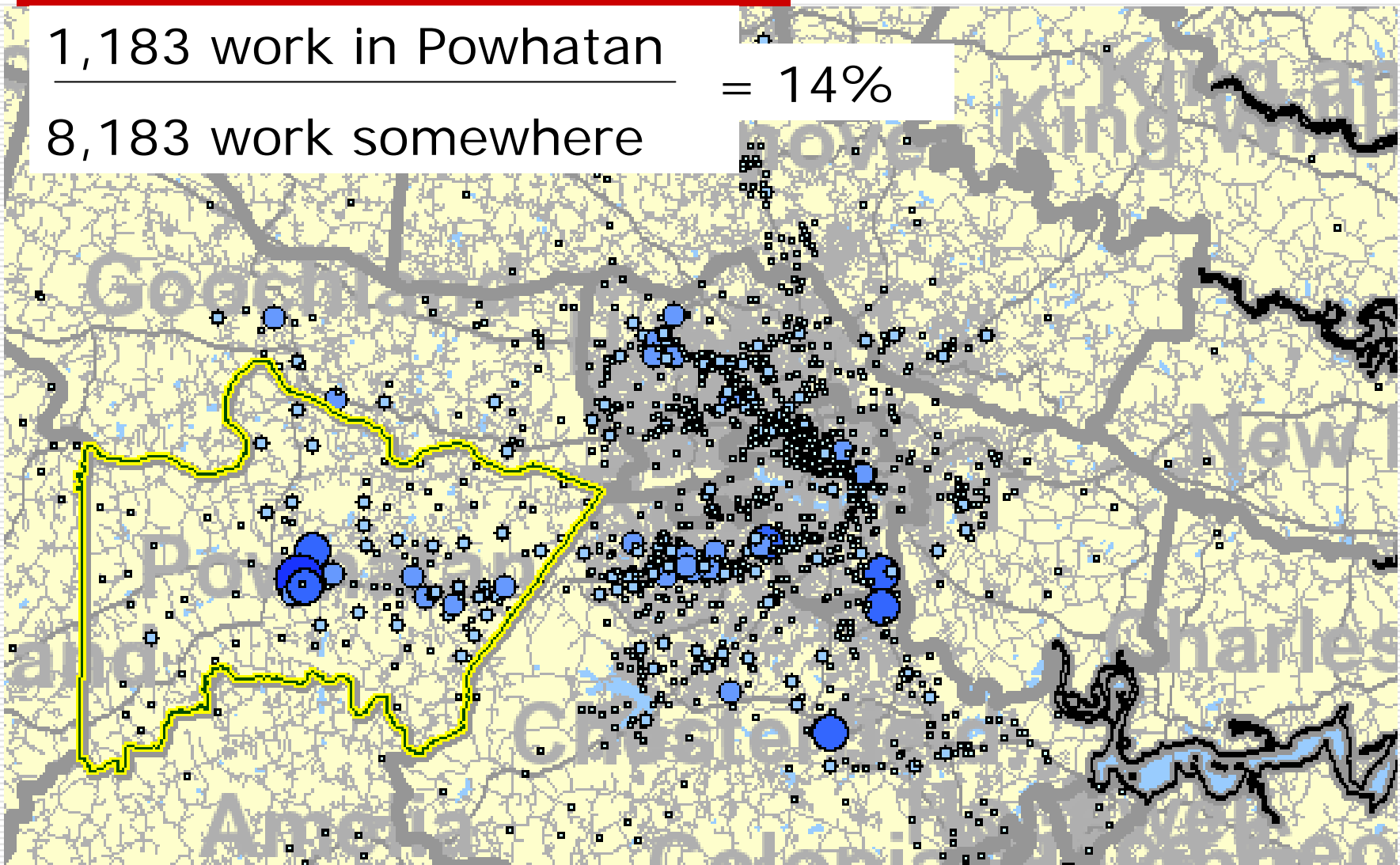
Goal: Protect and Manage Corridors

- ☐ Found 4 PMs, 2 of which are

- ☐ Percent of local governments whose land use plans agree with state corridor plans

- ☐ Incompatible land use adjacent to public airports

Airport Land Use Compatibility (WA)

| **Airport Land Use Compatibility Technical Assistance Program Milestones** *Number of Jurisdictions per Year with Milestone Achieved*				
	2003	**2004**	**2005**	**Goals**
Program Introduction Meeting/Workshop	5	1	6	20
Draft Comprehensive Plan Policies	6	3	10	15
Adopted Comprehen-sive Plan Policies	5	3	7	12
Draft Development Regulations	3	4	7	15
Adopted Development Regulations	3	4	4	10

Source: *Washington State Gray Notebook*

Goal: Align State and Local Efforts

- ☐ Found 3 PMs, 2 of which are

- ☐ Number of locations where integrated transportation/land use studies are undertaken

- ☐ Satisfaction of coordinated customers

Satisfaction of Coordinated Customers (MO)

Percent of Positive Feedback Responses Received from Planning Partners Regarding Involvement in Transportation Decision-Making
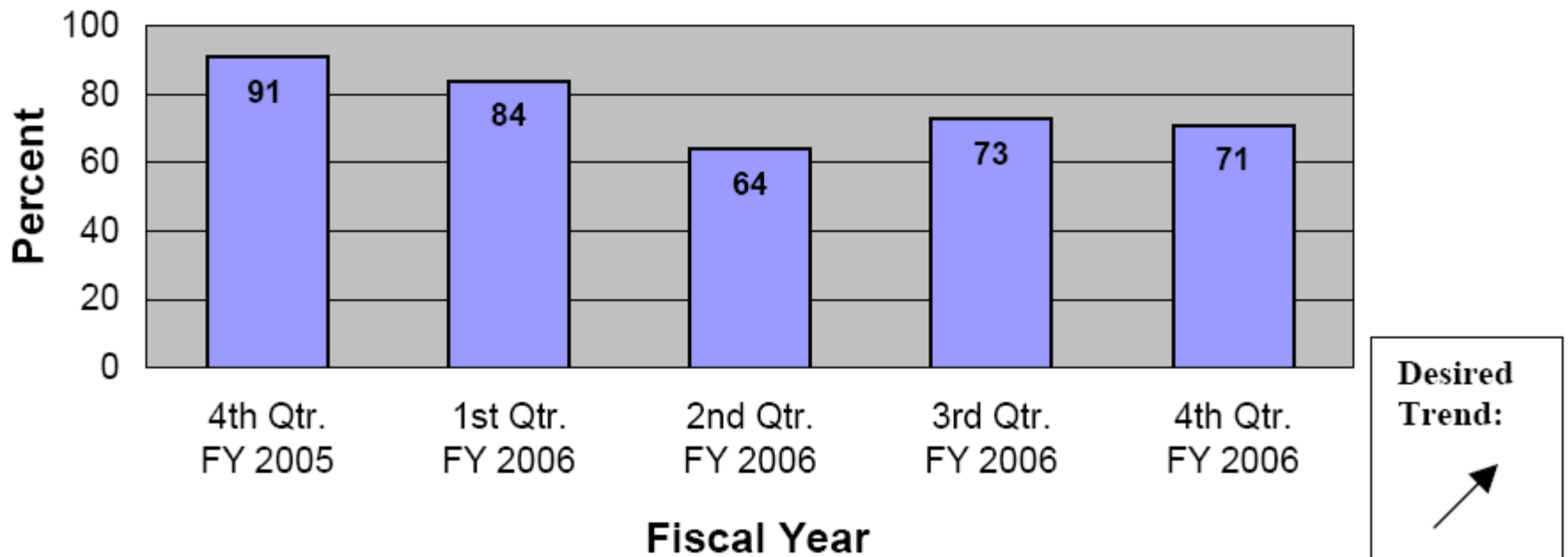
Source: Missouri DOT, MODOT Tracker,
http://www.modot.mo.gov/about/general_info/Tracker.htm
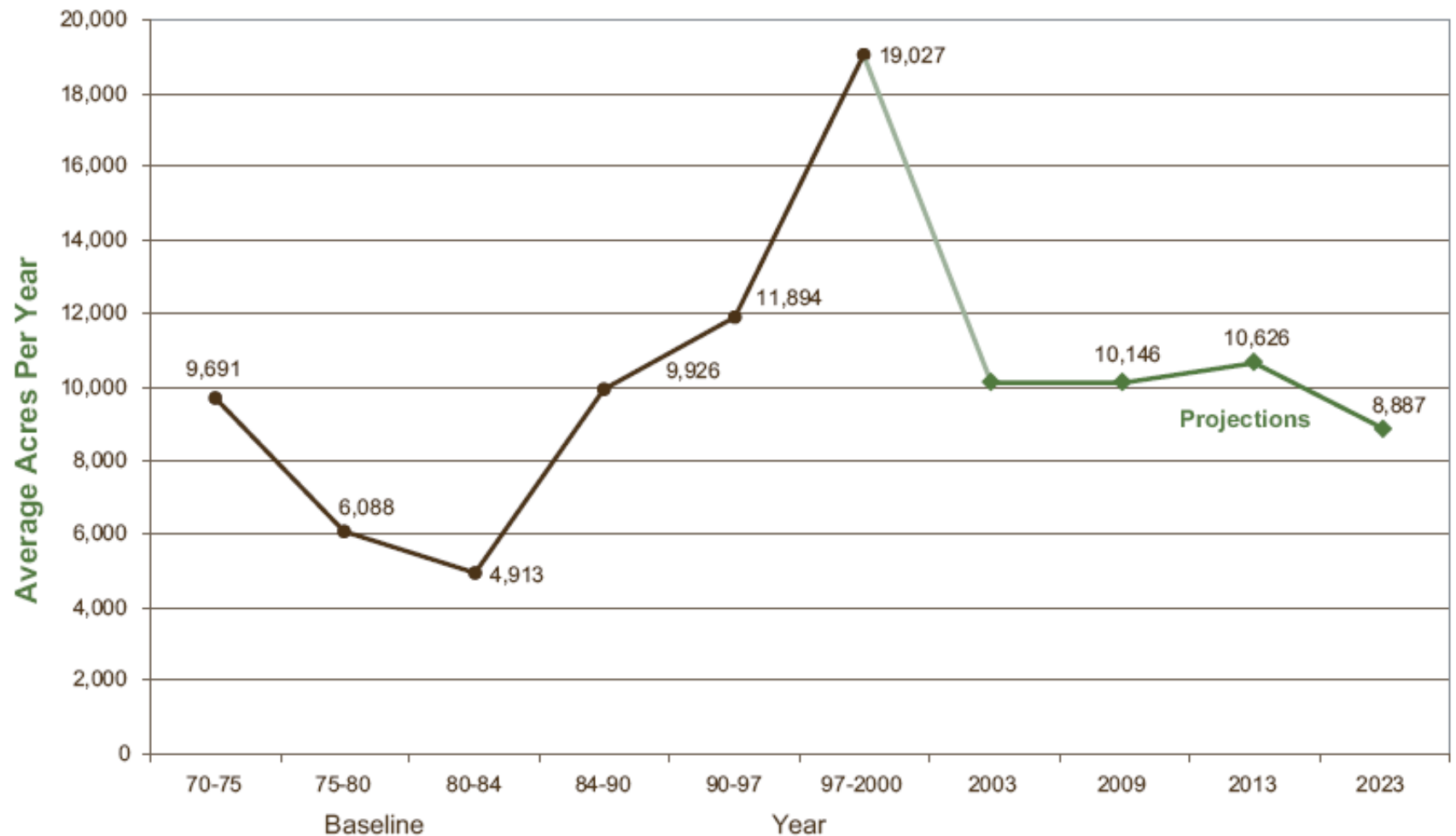
Goal: Reduce Land Consumption

- ☐ Found 4 PMs, 2 of which are

- ☐ Population and employment in the Urban Centers

- ☐ Conversion of undeveloped land

Population and Employment in Urban Centers (NJTPA)

	1980	1990	2000
Percent of Jobs in Urban Centers		10%	9%
Percent of population in Urban Centers	15%	14%	13%

Source: NJTPA, Access and Mobility 2030, Appendix L, Regional Indicators Report, http://njtpa.org/planning/rtp2030/rtp2030_documents/RTPappendices/AppL_RegIndic.pdf

Conversion of Undeveloped Land (Older PM from MN)

Respondents' Observations

☐ PMs must be understandable   Your rankings

☐ PM should not be misleading   VMT vs. Access

☐ Some definitions are specific to regions or localities   Corridor protection

☐ PMs should be scalable

My Observations

☐ States may not <u>explicitly</u> measure transport and land use coordination.

☐ PMs may be driven by

  ■ Results (e.g., jobs within 15 minutes)

  ■ Actions (e.g., miles of protected corridor)

☐ PMs vary by policy and by time

Consider example of Utah's jurisdictions with current general plans

Thank you!

- ☐ The next page in your handout summarizes performance measures by state.

- ☐ A more detailed version of this information is shown as a separate packet.